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DIALOG(R)File 347:JAPIO
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05673384 **Image available**
PHOTOELECTRIC CONVERTER

PUB. NO.: 09-288184 [JP 9288184 A]
PUBLISHED: November 04, 1997 (19971104)
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APPL. NO.: 09-027838 [JP 9727838]
FILED: February 12, 1997 (19970212)
INTL CLASS: [6] G01T-001/20; H01L-027/14; H01L-027/146; H04N-005/32
JAPIO CLASS: 46.1 (INSTRUMENTATION -- Measurement); 14.2 (ORGANIC
CHEMISTRY -- High Polymer Molecular Compounds); 42.2
(ELECTRONICS -- Solid State Components); 44.6 (COMMUNICATION
-- Television)
JAPIO KEYWORD: R020 (VACUUM TECHNIQUES); R044 (CHEMISTRY -- Photosensitive
Resins); R096 (ELECTRONIC MATERIALS -- Glass Conductors);
R115 (X-RAY APPLICATIONS)

ABSTRACT

PROBLEM TO BE SOLVED: To solve the problem of lowering of an S/N ratio to improve reliability of a photoelectric converter and a system having it by disposing therebetween thermal conduction material for thermally communicating between an integrated circuit element and a casing.

SOLUTION: The outside shutter 101 which is the easing of a device uses material for permeating an X-ray, and a scintillator 102 is irradiated with the X-ray including the X-ray information of an object to be inspected. The X-ray excites fluorescent substance by the scintillator 102, and fluorescence having wave length in the spectral sensitivity wave length area of a photoelectric conversion element is emitted from the scintillator. Good thermal conduction material 407 such as silicon grease of large thermal conductivity is brought into contact with a processed IC, IC on PCB and a PCB body. Furthermore, it is brought into contact with radiation absorption material 405 absorbing the X-ray or the shutter 101 of Al permeating the X-ray. Thereby, heat generation from IC of a bipolar transistor main body dispensable for processing very much pixel information can be radiated on the metal Pb or Al of high thermal conductivity.

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PHOTOELECTRIC CONVERTER AND ITS MANUFACTURING METHOD AS WELL AS MATERIAL
TRANSMISSION IMAGE PICKUP DEVICE AND PACKAGE DEVICE

PUB. NO.: 09-260626 [JP 9260626 A]

PUBLISHED: October 03, 1997 (19971003)

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INTL CLASS: [6] H01L-027/14; G01J-001/44; G01T-001/20; H01L-031/02;
H01L-031/14; H04N-001/028; H04N-001/04; H04N-005/335

JAPIO CLASS: 42.2 (ELECTRONICS -- Solid State Components); 29.4 (PRECISION
INSTRUMENTS -- Business Machines); 44.6 (COMMUNICATION --
Television); 44.7 (COMMUNICATION -- Facsimile); 46.1
(INSTRUMENTATION -- Measurement)

JAPIO KEYWORD: R002 (LASERS); R044 (CHEMISTRY -- Photosensitive Resins);
R096 (ELECTRONIC MATERIALS -- Glass Conductors); R098
(ELECTRONIC MATERIALS -- Charge Transfer Elements, CCD & BBD)
; R115 (X-RAY APPLICATIONS); R124 (CHEMISTRY -- Epoxy Resins)

ABSTRACT

PROBLEM TO BE SOLVED: To realize the photoelectric converter capable of
solving such problems as the decline in the resolving power and
sensitivity, release, etc., by making no gap in level in each substrate
within the photoelectric converter, wherein a plurality of substrates are
arrayed in planar mode.

SOLUTION: In order to form the photoelectric converter by arraying a
plurality of semiconductor substrates to be fixed on a base 2 using
adhesives 51, the level is adjusted by the thickness of the adhesives 51 in
the state sustaining the dimension between the surface of the base 2 and
the semiconductor 13 surface at the designed value A, so that the same
plane may be formed.